Remarks

Claims 1, 13 and 14 stand rejected as unclear under 35 U.S.C. 112. All pending claims further stand rejected as obvious over Shimizu in view of Ahern

The Claims have been amended to correct grammar and to improve clarity. Amendments of Claims 1, 13 and 14 delete the phrase "appear to disappear" and are thus believed to overcome the rejections under 35 U.S.C. 112. It is submitted that the amended claims meet the statutory requirement for clarity.

Applicant's invention is a graphical user interface system which effects transfer of display and control functions to and from a main processor display to a visual display on a peripheral device when a cursor on the main display is moved to an edge position on the main processor display which corresponds to the physical direction from the main display screen to the display on the peripheral device and vice versa. The Shimizu patent appears to describe a computer system wherein a pointing device is used to control a cursor on multiple display screens, but Shimizu is mainly concerned with algorithms for maintaining uniformity and integrity of the display when the two screens have different pixel counts and coordinate systems. As indicated below, Shimizu neither describes nor suggests means for determining the relative physical direction between his two display screens. The Ahern patent apparently describes a crosspoint switch which allows control of multiple computers and displays with a single pointing device, but also does not appear to describe any means for determining or using the relative physical orientation between the displays to enhance operation of the graphical user interface.

Independent claims 1, 13 and 14 each require means for or steps of determining the relative direction from the first display screen to the second display means. The examiner asserts that this functionality is described in Shimizu at column 7; lines 9-52. Applicant respectfully disagrees. The cited portion of Shimizu; to wit:

"If the Y coordinate yp is smaller than 0, that is, if the Y coordinate yp is smaller than the Y coordinate of the vertical edge of the coordinate systems C1 and C2 of the display devices D1 and D2, respectively, the Y coordinate yp is located inside the displayable area of the display devices D1 and D2 by setting the Y coordinate yp to the Y coordinate of the vertical edge of the coordinate systems C1 and C2 of the display devices D1 and D2, respectively, that is, by setting the Y coordinate yp to 0.

If the X coordinate xp is greater than 2879, that is, if the X coordinate is greater than the X coordinate of the horizontal edge of the coordinate system C2 of the display device D2, the X coordinate xp is located inside the displayable area of the display device D2 by setting the X coordinate xp to the X coordinate of the horizontal edge of the coordinate system of the display device D2, that is, by setting the X coordinate to 2879.

If the X coordinate xp is smaller than 1280 and the Y coordinate yp is greater than 959, that is, greater than the Y coordinate yp of the vertical edge of the coordinate system C1 of the display device D1, the Y coordinate yp is located inside the is playable area of the display device D1 by setting the Y coordinate yp to the Y coordinate yp of the vertical edge of the coordinate system C1 of the display device D1, that is, by setting the Y coordinate yp to 959.

If the Y coordinate yp is greater than 1279, that is, greater than the Y coordinate of the vertical edge of the coordinate system C2 of the display device D2, the Y coordinate yp is located inside the displayable area of the display device

D2 by setting the Y coordinate yp to the Y coordinate of the vertical edge of the coordinate system C2 of the display device D2, that is, by setting the Y coordinate yp to 1279.

With the above-described arrangement, the virtual cursor coordinates Cp (xp, yp) are located in the coordinate systems C1 and C2, that is, in the displayable area of the display devices D1 and D2.

Having located the virtual coordinates Cp (xp, yp) in the coordinate systems C1 and C2 of the display devices D1 and D2, respectively, the CPU 15 then determines whether the cursor is located in the displayable area of the display device D1 or the displayable area of the display device D1 (step S2-4) ";

is only concerned with relative (actual and virtual) positions of cursors on the two screens and makes no reference to or suggestion of systems or steps for determining the relative physical direction from his first display screen to his second display means or for using information regarding the relative direction to control appearance and disappearance of the cursor and/or visual indications. Ahern adds nothing to Shimisu's description in this regard. Since the cited references, taken alone or in combination, fail to describe or suggest elements of all of applicant's independents claims, they cannot make the claimed invention obvious to a person skilled in the art. Withdrawal of the rejections under 35 U.S.C. 103 and allowance of all claims in urged.

If the Examiner chooses to continue the rejection, he is respectfully asked to specifically point out which language in Shimizu expressly speaks of determining relative positions between the display screens or if not express, why he believes that such subject matter is inherent in the cited text portions.

Claims 7 and 8 require a docking cradle attached to an edge of a display screen. and means which sense that the second processor is in the cradle. The Examiner cites Shimizu Column 9; line 60 thru Column 10; line 10 as describing this feature, to wit:

"A description will now be given of a second embodiment of the present invention. FIG. 13 illustrates the relationship between the virtual coordinate system of the cursor and coordinate systems C11 and C12 of display devices D11 and D12, respectively, according to the second embodiment. The ratio between the pixel count of the display device D11 and that of the display device D12 is 2:5. It is to be noted that vertical coordinates of the display device D11 are defined in terms of a distance from the bottom. The other aspects of the construction of a computer system assumed in the second embodiment is the same as that of the first embodiment, and the description thereof is omitted.".

The portion of Shimizu cited by the Examiner relates to calculation of virtual coordinate systems and makes no express mention of a docking cradle or any similar structure attached to a display screen, of a second processor or of means for sensing that the processor is in the cradle. Applicant's attorney has in fact searched the entire text of Shimizu and cannot find any reference to these words. It is therefore submitted that Shimizu, taken alone or in combination with the secondary reference cannot make the subject matter of claims 7 and 8 obvious to a person skilled in the art. Reconsideration and withdrawal of the rejections in urged.

If the Examiner chooses to continue the rejection, he is respectfully asked to specifically point out which language in Shimizu expressly speaks of docking stations and the determining means or if not express, why he believes that such subject matter is inherent in the cited text portions.

Claims 9 require a wireless interface and a directional antenna. The Examiner cites Shimizu Column 16; lines 20 – 63; line 10 as describing this feature, to wit:

"...in the overlapping area.

While the first and second variations ensure smooth movement of the cursor by controlling the cursor movement depending on the pixel count of a display device. The cursor movement may be controlled depending on the pixel pitch.

For example, a third variation of the fourth embodiment may be such that the coordinate system C51 of the display device D51 having a pixel pitch of S1 and the coordinate system C52 of the display device D52 having a pixel pitch of S2 greater than the pixel pitch S1 are connected to each other such that the coordinate axes are aligned. A cursor position calculation is introduced such that the greater the values of the cursor coordinates on the display device D51, the smaller the amount of movement of the cursor on the display device D1 in response to a unit mouse movement. As a result, the cursor movement per a unit mouse movement becomes small as the cursor approaches the display device D52 so as to become more like the movement on the display device D52 in the overlapping area. In this way, smooth cursor movement between the display device D51 and the display device D52 is ensured.

A fourth variation of the fourth embodiment will be described. The coordinate system C51 of the display device D51 having a pixel pitch of S1 and the coordinate system C52 of the display device D52 having a pixel pitch of S2 greater than the pixel pitch S1 are connected to each other such that the coordinate axes are 180.degree. horizontally rotated from each other (see FIG. 19). A cursor portion calculation is introduced such that the greater the values of the cursor coordinates on the display device D51, the greater the amount of movement of the cursor on the display device D1 in response to a unit mouse movement. As a

result, the cursor movement per a unit mouse movement becomes great as the cursor moves away from the display device D52 so as to become more like the movement on the display device D52 in the overlapping area. In this way, smooth cursor movement between the display device D51 and the display device D52 is ensured. Since the cursor at a position on the display device D1 away from the display device D2 is moved at a rate adapted for the pixel count of the display device D1, the cursor can be moved efficiently on the display device D1."

Here again, the portion of Shimizu cited by the Examiner relates to calculation of cursor movement in coordinate systems and makes no express mention of a directional antenna, a wireless interface or any similar structure Applicant's attorney has in fact searched the entire text of Shimizu and cannot find any reference to these words. It is therefore submitted that Shimizu, taken alone or in combination with the secondary reference cannot make the subject matter of claim 9 obvious to a person skilled in the art. Reconsideration and withdrawal of the rejections in urged.

If the Examiner chooses to continue the rejection, he is respectfully asked to specifically point out which language in Shimizu expressly speaks of wireless interfaces and directional antennas or if not express, why he believes that such subject matter is inherent in the cited text portions.

Similarly Claim 10 requires directional infrared sensors and neither the text cited by the Examiner nor any other portion of the Shimizu patent make any mention of infrared light, infrared interfaces or infrared light sensors. It is therefore submitted that Shimizu, taken alone or in combination with the secondary reference

cannot make the subject matter of claim 10 obvious to a person skilled in the art. Reconsideration and withdrawal of the rejections in urged.

If the Examiner chooses to continue the rejection, he is respectfully asked to specifically point out which language in Shimizu expressly speaks of infrared interfaces and directional infrared sensors or if not express, why he believes that such subject matter is inherent in the cited text portions.

Similarly Claim 11 requires that the second display comprises indicator lights while the text cited by the Examiner concerns is unrelated and concerns pixel counts and pitch on displays such as CRT's. Neither the text cited by the Examiner nor any other portion of the Shimizu patent makes any mention of indicator lights. It is therefore submitted that Shimizu, taken alone or in combination with the secondary reference cannot make the subject matter of claim 11 obvious to a person skilled in the art. Reconsideration and withdrawal of the rejections in urged.

If the Examiner chooses to continue the rejection, he is respectfully asked to specifically point out which language in Shimizu expressly speaks of indicator lights or if not express, why he believes that such subject matter is inherent in the cited text portions.

Claim 12 has been amended to limit the group of second devices to lightweight portable units. Ahern neither describes nor suggests any of the devices in this grouping and could not make the subject matter of the claim obvious to those skilled in the art.

Prompt allowance of all pending claims is requested.

Respectfully submitted,

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May 17, 2003